IN THE CLAIMS:

1. (Previously presented) A medical system, comprising:

an implantable medical device;

a first elongated lead body including a first elongated insulated conductor and a connector formed at a proximal end; the connector including a first electrical contact adapted to be electrically coupled to the implantable medical device;

a second elongated lead body including a second elongated insulated conductor and a connector formed at a proximal end; the connector including a second electrical contact, the second electrical contact of the second connector adapted to be electrically coupled to the implantable medical device;

a first low voltage electrode joined to the first lead body and coupled to the first contact of the first connector via the first conductor, the first electrode adapted for intimate contact with tissue at an implant site;

a second low voltage electrode joined to the second lead body and coupled to the second contact of the second connector via the second conductor; and

a porous layer comprising one of a porous silicone layer and a sheet of collagen fibers formed over the second electrode, allowing conduction therethrough while preventing contact between the second electrode and tissue in proximity to the implant site;

wherein, when the first connector and the second connector are electrically coupled to the medical device and the first electrode is contacting tissue at the implant site, the first electrode and the second electrode form a bipolar pair for stimulation of tissue at the implant site.

2. (Original) The medical system of claim 1, wherein the second electrode includes an outer surface, the porous layer includes an outer surface, and the second lead body includes an outer surface; the outer surface of the second electrode recessed from the outer surface of the second lead body and the outer surface of the porous layer isodiametric with the outer surface of the second lead body.

3.-6. (Cancelled)

7. (Original) The medical system of claim 1, further comprising means to promote wetting of the porous layer.

8. (Original) The medical system of claim 7, wherein the means to promote wetting comprises a wetting agent applied to the porous layer.

9. (Original) The medical system of claim 8, wherein the wetting agent comprises a surfactant.

10. (Original) The medical system of claim 7, wherein the means to promote wetting comprises a surface treatment of the porous layer.

11. (Original) The medical system of claim 1, wherein the porous layer has a thickness between approximately 0.005 inch and approximately 0.020 inch.

12. (Original) The medical system of claim 1, wherein the porous layer includes pores having sizes ranging, on average, between approximately 0.4 micron and approximately 50 microns.

13. (Original) The medical system of claim 12, wherein the pores have sizes ranging, on average, between approximately 0.4 micron and approximately 10 microns.

14. (Original) The medical system of claim 12, wherein the pores have sizes ranging, on average, between approximately 10 microns and approximately 20 microns.

15. (Original) The medical system of claim 12, wherein the pores have sizes ranging, on average, between approximately 20 microns and approximately 50 microns.

16. (Original) The medical system of claim 1, wherein the porous layer is adapted to prevent chronic tissue ingrowth.

17. (Original) The medical system of claim 1, wherein the first low voltage electrode is implanted in a cardiac vein.

18. (Original) The medical system of claim 17, wherein the second low voltage electrode is implanted in a right ventricle.

19. (Original) The medical system of claim 1, further comprising a high voltage electrode and wherein the second lead body further includes a third insulated conductor and the second connector further includes a third electrical contact; the high voltage electrode joined to the second lead body, isolated from the second electrode, adapted for defibrillation stimulation and coupled to the third electrical contact via the third insulated conductor.

20. (Currently amended) A medical system, comprising:

an implantable medical device;

a first elongated lead body including a first elongated insulated conductor and a connector formed at a proximal end; the connector including a first electrical contact adapted to be electrically coupled to the implantable medical device;

a second elongated lead body including a second elongated insulated conductor and a connector formed at a proximal end; the connector including a second electrical contact, the second electrical contact of the second connector adapted to be electrically coupled to the implantable medical device;

a first low voltage electrode joined to the first lead body and coupled to the first contact of the first connector via the first conductor, the first electrode adapted for intimate contact with tissue at an implant site;

a second low voltage electrode joined to the second lead body and coupled to the second contact of the second connector via the second conductor; and

means for preventing the second electrode from stimulating tissue in proximity to the second electrode;

wherein, when the first connector and the second connector are electrically coupled to the medical device and the first electrode is contacting tissue at the implant site, the first electrode and the second electrode form a bipolar pair for stimulation of tissue at the implant site,

the means for preventing the second electrode from stimulating tissue comprises means for preventing anodal stimulation by the second electrode when the second electrode forms a bipolar pair with the first electrode for stimulation of a heart.

21. (Previously presented) An implantable electrical medical system, comprising:

a low voltage cathode electrode assembly including a cathode surface adapted for intimate contact with electrically active tissue; and

a low voltage anode electrode assembly including an anode surface and a porous layer extending over the anode surface;

wherein the cathode surface and the anode surface function as a bipolar pair for pacing; and

the porous layer extending over the anode surface allows conduction therethrough and prevents the anode surface from contacting the electrically active tissue in order to prevent anodal stimulation.

22. (Previously presented) The medical system of claim 21, wherein the porous layer comprises silicone.

23. (Previously presented) The medical system of claim 21, wherein the porous layer comprises polyurethane.

24. (Previously presented) The medical system of claim 21, wherein the porous layer comprises expanded PTFE.

25. (Previously presented) The medical system of claim 21, wherein the porous layer comprises collagen.

26. (Previously presented) The medical system of claim 21, further comprising means to promote wetting of the porous layer.

27. (Previously presented) The medical system of claim 26, wherein the means to promote wetting comprises a wetting agent applied to the porous layer.

28. (Previously presented) The medical system of claim 27, wherein the wetting agent comprises a surfactant.

29. (Previously presented) The medical system of claim 26, wherein the means to promote wetting comprises a surface treatment of the porous layer.

30. (Previously presented) The medical system of claim 21, wherein the porous layer has a thickness between approximately 0.005 inch and approximately 0.020 inch.

31. (Previously presented) The medical system of claim 21, wherein the porous layer includes pores having sizes ranging, on average, between approximately 0.4 micron and approximately 50 microns.

32. (Previously presented) The medical system of claim 21, wherein the pores have sizes ranging, on average, between approximately 0.4 micron and approximately 10 microns.

33. (Previously presented) The medical system of claim 21, wherein the pores have sizes ranging, on average, between approximately 10 microns and approximately 20 microns.

34. (Previously presented) The medical system of claim 21, wherein the pores have sizes ranging, on average, between approximately 20 microns and approximately 50 microns.

35. (Previously presented) The medical system of claim 21, wherein the porous layer is adapted to prevent chronic tissue ingrowth.

36. (Previously presented) The medical system of claim 21, further comprising an elongate lead body to which the cathode electrode assembly and the anode electrode assembly are coupled; wherein the anode surface is positioned in close proximity to the cathode surface for bipolar sensing of near-field electrical signals.

37. (Previously presented) The medical system of claim 36, wherein a shortest distance between the anode surface and the cathode surface is between approximately 2 millimeters and approximately 9 millimeters.

38. (Previously presented) The medical system of claim 37, wherein the shortest distance is between approximately 2 millimeters and approximately 5 millimeters

39. (Previously presented) The medical system of claim 37, wherein the shortest distance is between approximately 5 millimeters and approximately 9 millimeters.

40. (Previously presented) The medical system of claim 36, wherein the cathode electrode assembly is positioned distal to the anode electrode assembly.

41. (Previously presented) The medical system of claim 36, wherein the cathode electrode assembly includes a helix for fixation of the cathode surface to the active tissue.

42. (Previously presented) The medical system of claim 36, wherein the anode electrode assembly is positioned distal to the cathode electrode assembly.

43. (Previously presented) The medical system of claim 36, wherein:

the anode surface is recessed from an outer surface of the lead body; and

the porous layer includes an outer surface approximately isodiametric with the outer surface of the lead body.

44. (Previously presented) The medical system of claim 21, further comprising:

a first elongate lead body to which the cathode electrode assembly is coupled; and

a second elongate lead body to which the anode electrode assembly is coupled;

wherein the first elongate lead body is adapted for implantation within a cardiac vein in order that the cathode surface may contact electrically active tissue of an epicardial surface; and

the second elongate lead body is adapted for implantation within a cardiac chamber.

45. (Previously presented) The medical system of claim 44, wherein the first lead body is adapted for implantation such that the cathode surface contacts left ventricular electrically active tissue.

46. (Previously presented) The medical system of claim 44, wherein the second lead body is adapted for implantation in a right ventricular chamber.

47. (Previously presented) The medical system of claim 44, wherein:

the anode surface is recessed from an outer surface of the second lead body; and

the porous layer includes an outer surface approximately isodiametric with the outer surface of the second lead body.

48. (Previously presented) An implantable electrical medical system, comprising:

a low voltage cathode electrode assembly including a cathode surface adapted for intimate contact with electrically active tissue;

a low voltage anode electrode assembly including an anode surface and a porous layer extending over the anode surface, the porous layer comprising a sheet of collagen fibers wherein pores are formed by the collagen fibers; and

an elongate lead body to which the cathode electrode assembly and the anode electrode assembly are coupled;

wherein the anode surface is positioned in close proximity to the cathode surface for bipolar sensing of near-field electrical signals and the cathode surface and the anode surface function as a bipolar pair for pacing;

a shortest distance between the anode surface and the cathode surface is between approximately 2 millimeters and approximately 9 millimeters;

the porous collagen layer has a thickness between approximately 0.010 inch and approximately 0.020 inch and includes pores having sizes ranging, on an average, between approximately 0.4 micron and approximately 50 microns; and

the porous collagen layer extending over the anode surface allows conduction therethrough and prevents the anode surface from contacting the electrically active tissue in order to prevent anodal stimulation.